THE

COIL

WHOSE

PROMISE

IS ITS

PERFORMANCE

CONTRA-POLE ELECTRIC COMPANY INC.

Contra-Pole
TRADE MARK REG.

BROOKLYN, NEW YORK

HIGH FREQUENCY APPARATUS
AND
APPLICATIONS

PRICE 50 CENTS

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CONTRA-POLE ELECTRIC CO.

THE CONTRA-POLE ELECTRIC CO., INC.

"The Coil whose Promise is its Performance"

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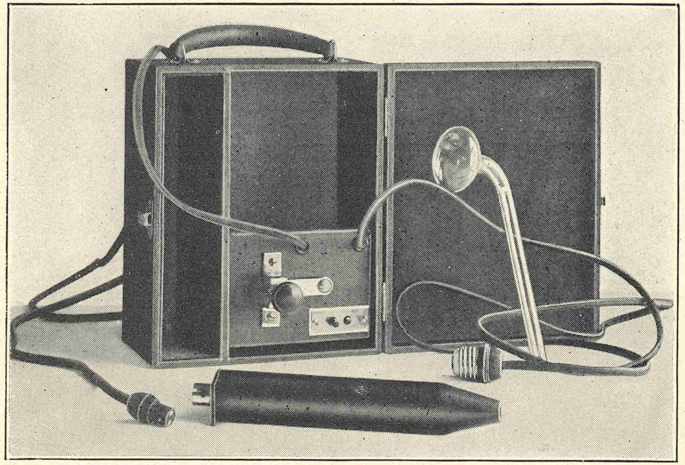
PREFACE

In the preparation and compilation of a book on this subject many difficulties are encountered as to the knowledge to be incorporated in the text, and that which should be omitted. We have essayed to use only such material as will be of real aid to the user of the Contra-Pole Violet-Ray Generator and have arranged the text in such a manner as in our opinion will best meet the demands.



CONTRA-POLE HIGH FREQUENCY APPARATUS BUILT IN CASE LIST NO. 501, WITH SURFACE ELECTRODE. SHIPPING WEIGHT, SEVEN POUNDS. LIST PRICE, $30.00.

FOREWORD

Most of history's greatest achievements have been accomplished in the face of adverse criticism by proponents of the old order. Columbus, Galileo, Morse, Watt, Bell, Marconi and other pioneers in new fields of science all had to pull against the stream and overcome by education and enlightenment the tides of ignorance and bigotry.

So it has been in the comparatively new field of electrotherapeutics. From the time that Ben Franklin built his first tiny static machine to this day of high-powered apparatus of wonderful efficiency, opposition of the most stubborn nature has been encountered and overcome.

This resistance to the spread of a new therapy was in a measure justified by reason of the charlatanry which was practised by novices, who saw an easy road to riches by advertising it to the credulous as a cure-all and a Ponce de Leon fountain.

Slowly and gradually the unethical, and in many cases unlicensed practitioners, were eliminated. Men of high standing in the medical profession came to know and accept the therapeutic value of electricity. Probably the hardest obstacle to overcome was the widespread impression prevailing that if electricity did have a curative value it was 90 per cent. psychic and 10 per cent. physical. Even the writings of some of the most eminent men of medicine substantiated by clinical data failed for a time to remove this impression. A campaign of education was inaugurated by various reputable manufacturers of electro-therapeutic apparatus and gradually (as the truth must always prevail) the profession as a whole came to know and believe in the wonderful results accomplished in this new field of modern therapy.

So great has been the demand in the past few years for light, compact and low priced yet efficient apparatus that many so-called coils and transformers have been placed upon the market to enjoy their little day of life and then fade out. The need still exists for an apparatus such as described, that will deliver the goods and stand up under every reasonable requirement and test put upon it.

To supply this need the Contra-Pole Electric Co. offer for your approval the apparatus which this booklet describes. We have given the best that is in us to its production and send it out with confidence as THE COIL WHOSE PROMISE IS ITS PERFORMANCE.

The Contra-Pole high frequency Violet-Ray generator is not a panacea for all human ills or ailments.

We realize that many so-called Violet-Ray machines have been placed on the market that do not, and could not, perform all the functions claimed for them.

In many instances the firms putting forth these machines were not sufficiently familiar with the use of the high frequency current. In consequence many, and in some instances grave, errors resulted.

Again, professional promoters, knowing the gullibility of the public, put out so-called Violet-Ray machines simply to sell, not knowing or caring if they performed the functions claimed for them.

The Contra-Pole Electric Co., realizing the immense practical value of the Violet-Ray machine to the medical profession and the general public, are placing on the market their apparatus, with all confidence in its efficacy, as hereinafter outlined. To this end we purpose to save neither expense nor cost of superior workmanship to make it the leader in its field;—THE COIL WHOSE PROMISE IS ITS PERFORMANCE. We make no claims for our apparatus except those that have been thoroughly demonstrated and substantiated.

We have as consulting electrical engineer Professor J. deBeaumont, who has been doing research work with high frequency current since 1891 and manufacturing and experimenting with the Violet-Ray apparatus since 1910.

Professor deBeaumont is undoubtedly one of the foremost, if not the foremost, authority in the United States on high frequency current. Also he has had more practical experience with the Violet-Ray than any other man in the United States.

We also have on our staff efficient medical experts who will collaborate with Professor deBeaumont with advice as to the treatment of special cases and also will advise as to the methods to be employed, etc.

We will be glad to correspond with the profession and also the user with reference to the treatment of special cases with the Contra-Pole Violet-Ray. Many authoritative clinical reports and reprints on obscure conditions are ready for distribution.

HISTORY OF HIGH FREQUENCY CURRENT.

High frequency current was brought to general notice about the years of 1890 to 1892. For a number of years thereafter it was in a stage of investigation and development. Physicians and engineers combined their efforts, not only to its perfection, but also to determine its therapeutic value. During the years 1896 to 1900 Professors d'Arsonval of the Faculty of the Sorbonne, Paris, and Professor Oudin had it well in hand and produced it in a practical and tangible form, demonstrating its therapeutic value. From that time on physicians began its use and good results were reported in medical literature. It would serve no purpose to go too deeply into the history of the Violet-Ray, as it would require several volumes to do the subject justice.

Until the discovery of high frequency and its development by Tesla, d'Arsonval and Oudin curative results in electro therapy were expected to be had by so-called Faradic and Galvanic currents, both of which are painful when applied, very often producing muscular contractions not desired by the physician and painful to the patient, yet not to be avoided. High frequency current, however, is absolutely painless to the person who uses it and of far superior therapeutic value than either Faradic or Galvanic currents.

WHAT IS HIGH FREQUENCY CURRENT?

High frequency current cannot be compared with direct current and alternating current, inasmuch as direct current flows from its source (a dynamo, battery or static machine) in one direction from zero line to the peak of the wave, i. e., its highest voltage, keeping its output practically constant. Alternating current, the source of which is the alternator, goes in one direction from zero to the peak, dropping from the peak to zero, below the zero line to the opposite peak, coming up to zero line, thus forming a cycle.

This motion is kept up according to the cycle per second to any desired rapidity up to 500 cycles as in the latest alternators being used for wireless telegraphy.

High frequency current, to begin with, is, in a strict sense of the word, not produced by a dynamo or generator. A dynamo or battery is taken as an exciter to charge a capacity (Leyden Jar or condenser) which in connection with a solenoid and a spark gap are used to produce oscillatory current.

In machines designed to produce a large amount of high frequency current a step up transformer or coil (and, in connection with coil, an interrupter) has to be used to produce a tension of a voltage high enough to fill the Leyden Jar or condenser.

It is a known fact that after a capacity is charged to the maximum it will discharge through a suitable gap in impulses, the first impulse being in one direction, the second in the opposite and so forth until it is discharged.

If this capacity, as in the case of high frequency current, is brought in connection with a solenoid (which is usually a coil of heavy wire of up to 32 turns as in the case of d'Arsonval current (named for the inventor of that kind of high frequency) and a spark gap, it will produce rapid electric oscillations of anywhere from 15,000 to 3,000,000 per second, as in the very heaviest machines.

If a coil of wire properly insulated is put into the solenoid we have then a high frequency transformer. The second, or inside coil, being used to step up the comparatively low potential of the primary into a high potential. The height of the tension is usually regulated by the amount of turns of wire on the secondary coil.

Volumes have been written about high frequency current, but so far nothing explanatory to the lay man has been brought forth.

When we speak about direct or alternating current we have certain standards to go by. We find through calculations and tests our exact voltage (up to a certain amount) amperage, cycles, etc. We have very accurate measuring instruments to determine same.

When very high voltages come into consideration a certain standard spark length has been a guide as to the voltage.

The spark capacity of alternating current is somewhat higher than sparking capacity of direct current. As a standard it is considered that 25,000 volts will jump a one-inch gap. If by this standard we would compare high frequency, then a little machine such as the smallest one we manufacture would produce at least 45,000 volts. This is a somewhat erroneous statement always made and even exaggerated by manufacturers. The fact is that through the rapid oscillations of the high frequency current the character as to sparking and heating is absolutely different from alternating or direct current.

In the case of the Contra-Pole Violet-Ray Generator operating on 110 volt, using 0.5 ampere or 55 watts, the output on the high frequency side as measured by standard Gaiffe hot wire meter is 1/20 of an ampere. The efficiency of the Contra-Pole machines being about 72 per cent., simple calculation will show that the voltage is about 792 volts at a spark length of 1½ inch.

These results are accomplished through the perfect tuning of the instrument; by tuning we mean the balancing of inductions and capacity. To accomplish this, not only knowledge and years of experience, but the highest grade of material and workmanship obtainable are necessary.

The Contra-Pole Violet-Ray Generator is of the Tesla design, being constructed after Nicola Tesla's principles. The difference between Tesla's and the d'Arsonval and Oudin design is that Tesla used one Leyden Jar or condenser in series with a solenoid and gap, whereas the others used two capacities, one on each side of the gap.

PECULIARITIES PRODUCED BY THE VIOLET-RAY HIGH FREQUENCY CURRENT.

The High-Frequency Current is unipolar. That is, it does not require a complete circuit. From the attachments or electrodes you can readily see the violet color reaching out and flowing into space. It is capable of traversing long distances as ether waves as in wireless telegraphy and telephony.

Glass does not insulate the High-Frequency Current as it does ordinary electricity. You can see that it easily passes through the glass electrodes which are used with the Contra-Pole Apparatus. Even heavy plate glass offers no barrier to its passage.

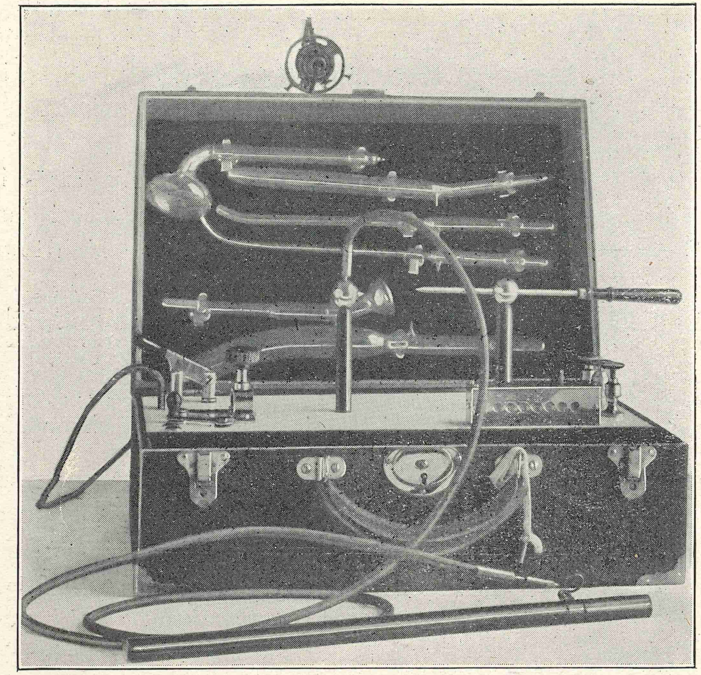
The High-Frequency Current generates enormous quantities of Ozone during its flow. The actions and benefits of this wonderful health-giving element will be described later.

It is possible to excite and light-up any glass electrode from the current passing through the body during a high frequency treatment. To show this hold the metal electrode in one hand, and when the current is turned on the surface electrode held in the other hand will light-up. Even when not in contact with the body the surface electrode will light up when held away from the body by another person. This demonstrates conclusively that the beneficial High-Frequency Current not only permeates every cell in the body but emanates from it.

The High-Frequency Current produces a deep-seated cellular massage. The contractile effect is expended upon the individual cells making up the tissues, instead of an individual muscle. This is called cellular massage, and it is one important reason why the High-Frequency Current produces such a marked effect on nutrition and general health. Cellular massage is more penetrating and much more beneficial than muscular massage as produced by mechanical vibration.

It may be inquired by the novice why high frequency with its high voltage and permeative power through the entire system should be so painless in its effect, while the lesser currents are harsh and unpleasant.

This is accomplished by the diffusion of current, due to its rapid oscillations. Its effect may be roughly paralleled thus: should a barrel of flour drop from the top of a high tower and strike one on the head death would ensue. If, however, the flour were dumped from the barrel from the same height, and all of it fall on one, the result would be nothing more than the need of a whisk-broom. So with the high frequency current the entire output is received without shock or pain on account of its diffusion.



CONTRA-POLE HIGH FREQUENCY APPARATUS LIST NO. 502 (PHYSICIANS' SPECIAL) MODALITIES: CAUTERY, HIGH FREQUENCY, DIAGNOSTIC LAMP AND X-RAY, WITH SIX VACUUM GLASS ELECTRODES AND HANDLE. SHIPPING WEIGHT, 20 POUNDS. PRICE, $75.00.

THERAPEUTIC INDICATIONS.

The high frequency current is used when we wish to effect the nutrition of muscles which are paralyzed and do not respond to treatment, as in infantile paralysis. It is also employed to bring about relief in painful neuralgic conditions, as sciatica, tic douloureux, or trigeminal neuralgia; myalgias in various forms. Sometimes it is the current used in cataphoresis or the induced absorption of drugs.

In neuralgias of all kinds it is useful. The high frequency current is of special value in the functional neuroses, and at times marvelous results are obtained by its continual application. Chorea has been benefited by the application of this form of electricity. Insomnia, high blood-pressure, and some skin affections, particularly psoriasis, have been favorably impressed. The high-frequency current has a very wide field of application. On the blood-pressure marked changes are produced. The peripheral vessels are widened, with resultant hyperemia, and a fall of blood-pressure; a sphygmomanometer test before and after use will prove this. Pain is relieved. The absorption of exudant and morbid tissues is facilitated, and metabolism (change of cell life) is assisted. This current is of value in painful conditions, as sprains, lumbago, headaches, and in such affections where the absorption of inflammatory tissues is required, as in subacute and chronic rheumatism, chronic arthritic conditions, and skin disorders, as eczema, lupus, moles, acne and alopecia.

MASSAGE.

The Contra-Pole Violet-Ray can be used in massage where it is not permissible to use the hand, as in all inflammatory conditions associated with pus or skin diseases accompanied with a rash or parasitic infection. The general benefits of massage are too well known to require extended comment here. When combined with the stimulation of the high frequency current, their range of usefulness is multiplied.

NERVOUS AFFECTIONS.

No wider field of application is served by high frequency current than that of affections of the nervous system.

In the treatment of nervous diseases by the use of drugs there is always a question of reaction and the elimination of the drugs. No two people are alike and cannot be treated alike; some are susceptible to certain drugs and others not, whereas the Violet-Ray can be so applied as to be tolerated by everyone.

The average sufferer from nervous disorders is chary of electrical treatment because of the fear of shock, burning, etc. His impression has been gained from experience with galvanic and faradic batteries and other devices, the treatment from which is harsh and unpleasant.

To such sufferers the mild, soothing, painless Violet-Ray current comes as a positive boon. The tendency to fear is entirely eliminated, and the sedative restful after effect is welcomed and enjoyed.

Most of the functional neuroses may be benefited by high frequency. Various occupational neuroses and maladies, such as the wrist-drop, characteristic of lead workers, are also relieved. It is, however, to be understood that chronic nervous conditions are not to be cured quickly. Relief is generally experienced after a few treatments, sometimes even one application will give relief; but to effect a permanent cure the treatments should be long continued, and their regularity maintained rigidly.

With the observance of personal hygiene, rest and diet, together with the application of the current as indicated for the particular nervous affection a sure return to health should result.

We have on hand several reprints from the writings of well-known physicians, covering the diseases of the nervous system, and will be glad to send them to physicians who may be interested.

STIMULATION AND SEDATION

The Contra-Pole Apparatus can be used both as a stimulant to increase circulation and as a sedative for constitutional conditions.

Stimulation. By holding the electrode a short distance away from the part to be treated, small stimulating sparks are produced. The stimulating actions of the Contra-Pole Apparatus are deeper, longer lasting, and more beneficial than any drugs or drinks. They are not followed by a reaction; they create no habits; they are wholly beneficial without any drawbacks whatever. This property of stimulation makes High-Frequency invaluable in the treatment of Rheumatism, Lumbago, Neuritis, Skin Diseases, or wherever increased circulation is desired. This treatment can be given without removing the clothing. If used through the clothing there is a slight prickling sensation and stimulating effect. A more soothing effect is obtained and no prickling sensation noticeable if the clothing is removed and the electrode used in direct contact with the skin.

Sedation. This is produced by holding any electrode (preferably the metal or surface electrode) in one hand or in contact with any part of the body. This treatment is very pleasant and highly beneficial; the tranquillizing and refreshing properties of the Contra-Pole sedation are indispensable in the treatment of Neurasthenia and many other nervous ailments.

OXIDATION.

Oxidation is the process of the element—oxygen—combining chemically with other substances, heat and light being evolved in the process. The heat and light evolved may not be perceptible unless the oxidation takes place rapidly, as in the burning of gas, wood, coal, etc. If the substance combines slowly with oxygen, light is not seen and heat may be imperceptible: for example, iron allowed to lie in moist air is covered with rust due to the union of the iron and oxygen, thus producing oxidation of the iron. Also in our bodies much of the food which we take unites to form oxygen, and thus the temperature of the body is kept up, but light is not perceptible. It is for this reason that oxygen must be taken into the body, which is accomplished by the act of breathing.

It is also for this reason essential that the air we breathe in should have its full complement of oxygen, or 23 per cent. To insure this a constant supply of pure, fresh air is imperative.

It is evident from the foregoing that oxygen is necessary if we are to live.

The high frequency current rarifies oxygen so that it gives off ozone. This ozone is breathed in by the patient, insuring an ample supply of oxygen to the lungs and blood. Also (when the electrode is in contact with the skin) it is driven in minute particles through the skin into the blood direct.

This result can be obtained only by application of high frequency Violet-Ray current.

PRODUCTION OF HEAT.

Heat in the body is produced by the chemical changes that are constantly going on in the tissues and by the friction of muscles and other organs. *Wherever metabolic changes are taking place, there heat is set free.* These changes take place more rapidly in some tissues than in others, and in the same tissues at different times. The muscles always manifest a far higher rate of activity than the connective tissues, and consequently the former evolve a larger proportion of the bodily heat from the latter. We might liken the different tissues of the body to so many fireplaces stored with fuel, the fuel in some of the fireplaces being more easily ignited and burning more rapidly than in others. The muscles and the secreting glands, especially the liver, are the main sources of heat as they are the seats of a very active metabolism.

The blood, as we know, permeates all the tissues in a system of tubes or blood-vessels. Wherever oxidation takes place and heat is generated, the temperature of the blood circulating in these tissues is raised.

From this will be seen that if the blood is kept properly supplied with oxygen and the skin pores kept open that the functioning qualities of all parts of the system are improved. The different functions being carried on to a greater degree of efficiency and the waste and poison matter being likewise eliminated to a greater degree.

It is for this reason that people suffering from anaemia, colds, the combined presence of cold hands and feet and kindred complaints are greatly benefited by the use of the Contra-Pole Violet-Ray.

FUNCTIONS OF THE BLOOD.

Blood is commonly spoken of as the nutritive fluid of the body. This is quite correct, but it is more than a nutritive fluid, as will be seen from the following list of its more important functions:

1. It carries to the tissues the nutritive substances resulting from digestion.
2. It carries to the tissues oxygen, absorbed from the air in the lungs.
3. It carries from the tissues various waste products.
4. It serves as a medium for the transmission of certain internal secretions.

5. It aids in equalizing the temperature of the body.
6. It aids in equalizing the water contents of the body.

From the foregoing it will be seen that the blood aids every portion and function of the body. It will also be noted that the blood depends upon oxygen for its well-being. It is for this reason that consumptives and anaemic people go to the mountains or other places where the atmosphere is rare in order that the rarified oxygen or ozone may have an opportunity to enrich the blood and destroy the germs which are the cause of the diseased condition.

Each separate form of cells have the selective ability to take up from the blood the nourishment and element best suited to their need. When we remember that the tissues live on the blood, we recognize the gravity of those diseased conditions in which important elements are being constantly drained away from the blood, as, for example, the albumin in diseases of the kidneys, the red corpuscles in hemorrhage, the water of the blood in cholera, etc.

Withdrawal of oxygen, as we know, causes instant death, and a constant supply of fresh air is a vital necessity of life. Nor is it of less importance that the blood be kept free from those waste matters—preeminently carbon dioxide and urea—which, in accumulating, poison the system, and, if not excreted in sufficient amount, will as surely cause death as the withdrawal from the blood of any of its vital constituents.

Ozone can be taken direct through the skin flesh tissues into the blood by the use of the high frequency current, also the ozone furnished by the high frequency current breathed by the person insures a supply of oxygen to the lungs and blood in quantities that can be obtained from no other source.

High frequency applications will materially reduce high blood-pressure. It has been used in the case of old people with arterior-sclerosis, and the reduction of blood pressure produced is said to have shown considerable permanence.

FUNCTION OF THE RED CORPUSCLES.

The red corpuscles are emphatically oxygen carriers. Exposed to the air in the lungs, the corpuscle combines with the oxygen present in the air; this oxygen the corpuscle carries to the tissues; these, more greedy for oxygen than the corpuscle itself, rob it of its charge, and the corpuscle thus deprived of its oxygen, hurries back to the lungs for a fresh supply.

It will thus be seen that one of the principal duties of the red corpuscles is to carry oxygen from the lungs to the whole system.

The patient breathing the ozone which is created by the high frequency current keeps the lungs well supplied with oxygen, insuring the red corpuscles an ample supply to distribute through the body, also the ozone, being driven through the skin into the blood direct, enriches the blood to an extent that is obtainable from no other source.

BRAIN FUNCTION.

All of our mental processes, including sensations, motions and all the higher functions of memory, reasoning, etc., owe their existence to brain activity.

It is known that the brain functions best when continually supplied with proper amount of fresh blood.

An application of the surface electrode with mild current over the head and back of neck will supply fresh blood to the brain. The driving of the fresh blood to the brain naturally carries off the stagnant or impure blood which is the cause of headache, brain fag, etc.

The stimulating or soothing, according to method used, of the nerves of the head and brain improve the patients' condition to a marvelous degree.

We know of no better treatment for the tired business or professional man than an application of the Contra-Pole Violet-Ray high frequency current and we prophesy that the time will come when the majority of business men will own, as part of their home or office equipment, a Contra-Pole Violet-Ray apparatus which they will use to eliminate brain fag, headaches and kindred complaints.

Its use imparts a sense of well-being and is far superior to a Turkish bath, hand massage or any medicines that are supposed to cure headaches, brain fag, etc.

METABOLISM (CELL-CHANGE).

The process which we call life is simply cell-change. Each effort of the body, each raising of a finger, each winking of an eye, each breath that is drawn, destroys countless cell organisms which must be replaced with sound healthy cell-structure.

This replacement of the unfit by the fit is known as metabolism; on it depends our existence. Arrest it and we die.

When healthy metabolism occurs, i. e., when reparation of cell tissue balances its destruction, we have a high tissue resistance power which is essential to our physical well-being.

The normal resisting power of the healthy tissues of the body to exposure, the wear and tear of work, and the influences which cause disease is called "tissue resistance." When "tissue resistance" is at the normal value which we call par, the organs and fluids of the body are proof against many diseases that attack others, and will heal very quickly if injured or otherwise sick.

One of the marked characteristics of a reduced state of normal resistance in the tissues is the increased liability of the individual to suffer from slight exposure, to take cold easily, to become fatigued easily and to lack the vital energy of the sound state.

If the standard of normal tissue resistance is restored by prompt treatment the acute disease is quickly overcome by the energies of nature. If it is not so restored, the disease tends to become chronic. In order to cure (eradicate from the system) many diseases it is merely necessary to build up the tissue resistance, then nature will do the rest.

In order to keep tissue resistance up to par, it is necessary to keep the cells of the tissues in a tonic state. This is done by the cellular massage of the Contra-Pole Apparatus. Deviation from normal nutrition reduces the toughness of the cells and makes them more susceptible to the enemies which are always on the alert to attack the human body.

There is no better action than that of the Contra-Pole High-Frequency Current in energizing the impaired power of nutrition and in promoting an increased capacity of the cellular tissues to take up more oxygen, more food and more active functions. Thus High-Frequency becomes the decisive means of restoring and maintaining the resistance of the cellular tissues at par.

Treatment with the Contra-Pole Apparatus using the surface electrode, metal electrode and the Ozone Generator eliminates the impurities from the clogged up capillaries of the skin and sends a freshened circulation vigorously coursing through the body. The Ozone Generator gives the healing power of Nature in improved blood, increased functional nutrition, and especially in the increased amount of concentrated oxygen (ozone) carried through the lung cells into the blood.

A month of such treatments accomplishes more lasting, beneficial results than fifteen years of cough mixtures, tonic sedatives and travel. No other remedial agency except the High-Frequency Current is competent to produce the actions that so decisively invigorate nature.

THE ELIMINATION OF WASTE PRODUCTS.

Broadly speaking, the waste products are urea, carbon dioxide, salts and water. These leave the body by one or another of three main channels, the lungs, the skin and the kidneys. Some part, it is true, leaves the body by the bowels.

The waste matters discharged relatively by the lungs, skin and kidneys may be stated as follows:

BY THE LUNGS: The greater part of the carbon dioxide.

	A considerable quantity of water. A certain amount of effete matter.
BY THE SKIN:	A variable but, on the whole, large quantity of water. A little carbon dioxide. A small quantity of salts. A small quantity of urea.
BY THE KIDNEYS:	All, or nearly all, the urea and allied bodies. The greater portion of the salts. A large amount of water. A very small quantity of carbon dioxide.

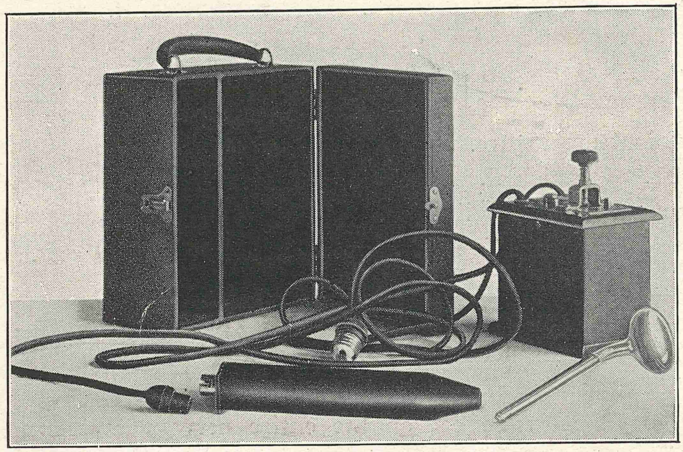
The high frequency current by furnishing to the lungs a plentiful supply of oxygen assures proper carrying on of the lung function of elimination of waste matter. In this instance we speak principally of carbon dioxide.

By opening the pores of the skin, driving ozone through the skin and tissues into the blood, we cause the blood to perform the proper functions and to increase its eliminating factors.

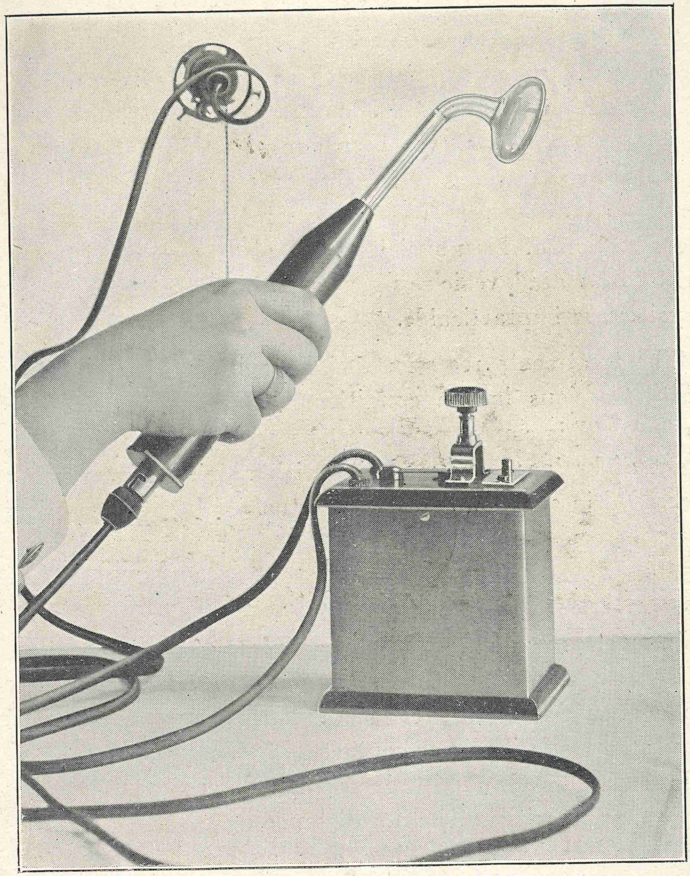
GENERAL EFFECTS ON AND IN THE SYSTEM BY THE USE OF THE CONTRA-POLE HIGH FREQUENCY APPARATUS.

When daily treatments are given with the Contra-Pole High-Frequency Apparatus the following effects are to be noticed:

1. Increase in oxidation, local nutrition through the skin.
2. Return of sleep.
3. Increased blood supply locally.
4. Increased oxidation in blood.
5. Increase of strength and vital energy.
6. Increase in cheerfulness and power for work.
7. Improvement in appetite, digestion, etc.
8. Increase of secretions.
9. Increased elimination of waste matter, not through the alimentary canal, but through the kidneys and skin.
10. Increased feeling of heat without the corresponding rise in temperature.
11. Germicidal, stimulating and soothing effect according to mode of application.
12. Cauterization if proper current and electrode are used.
13. If applied in spark form decrease of arterial tension.
14. Increased circulation.
15. Increase of red blood corpuscles.
16. Soothing effect on the entire nervous system.



CONTRA-POLE HIGH FREQUENCY APPARATUS WITH CARRYING CASE AND LARGE SURFACE ELECTRODE LIST NO. 500. SHIPPING WEIGHT SEVEN POUNDS. PRICE, $30.



CONTRA-POLE HIGH FREQUENCY APPARATUS LIST NO. 500, SHOWING CONNECTION TO WALL SOCKET OF EITHER DIRECT OR ALTERNATING CURRENT.

RANGE OF TREATMENTS.

The following recommended applications of the High-Frequency Current are only such as may be given in a book of such limited scope as this. Written in non-technical terms, so far as possible, it has been our intention to give to the lay patron a working knowledge of the technique of treatments so that he may use his apparatus in his home under the direction of his physician, and also to render it an efficient "first aid" vehicle, when the prompt attendance of a physician is impracticable.

The treatments recommended have been tried and found most efficacious in the conditions for which they are prescribed. This employment must be administered with an adjunct of brains;—one modality with which we have not yet succeeded in equipping our apparatus.

ABSCESS.

In most cases of abscess on the surface of the body prompt relief may be obtained through aplication of the surface electrode around the base of the inflammation. Application should be made in direct contact with the skin, at first with mild current. Gradually increasing the ccurrent, the electrode may be withdrawn to a distance of 1/8 to 1/4 inch, thus producing an hyperemia, i. e. drawing blood to the affected region, so producing a counter-irritant. This treatment should not be continued more than 10 minutes at one application, though it may be repeated several times daily.

ACNE.

This distressing condition, so common in young people, is one in which quick and permanent relief may be obtained by the use of a short sparkle, approximately 1/8 inch in length and fairly sharp over each individual pimple and blackhead. Where blackheads are deeply imbedded in the tissues, results may be had by using a very mild fulguration spark, thus softening the imbedded mass and permitting of its easy removal. Steaming the face previously will be found helpful. As in abscess the diet should be carefully regulated, rich and greasy food should be eschewed and the bowels kept in a healthy condition. Boils and carbuncles may be treated in a similar way. The bowels should be kept open and care observed of the diet.

ALCOHOLISM.

The resulting nervous reaction following prolonged alcoholic excesses may be soothed by application of the surface electrode on each side of the spinal region followed by mild sparking over the extremities.

ASTHMA.

In asthmatic conditions, if the disease is of long standing, the best results may be obtained through the use of the ozone generator. Choking and coughing fits will generally be promptly alleviated by these means. A local auxiliary treatment may also be used for a sedative effect by a gentle massage over the area with the surface electrode and mild current.

This treatment will be found most beneficial in the case of patients who for various reasons may not find it suitable to live in the climate their condition demands. (See excerpts).

BALDNESS (Alopecia).

Where the hair follicles have not been entirely destroyed, high frequency applied directly to the scalp by means of the surface electrode or the comb electrode has been found to be almost a specific. The powerful, yet gentle, stimulation to the follicles causes them to perform their functions in a normal manner and the results are in many cases surprising. Dandruff, which is merely an indication of impending atrophy, i. e., destruction of functions, of the hair follicles, is also eradicated by continued treatments. A short spark from the surface electrode may also be used over the entire scalp, thus producing a hyperemia, which is most beneficial to the follicles by reason of the increased nutrition it brings to them. It must be understood that neither one, two nor three treatments as thus outlined may be expected to effect results. The course of treatment must be an extended one, but when conscientiously followed the results will be surprising.

BARBER'S ITCH.

This disease, of parasitic origin, should be treated by first thoroughly cleansing the infected area with warm water and castile soap, and a mild antiseptic wash. Bi-chloride of Mercury, 1-2000 solution, is admirable for this purpose. Treat then with mild current from the surface electrode in close contact, followed by a short spark till counter-irritation is produced. The condition is stubborn and may require extended treatment.

BLACKHEADS.

See Acne.

BOILS.

See Abscess.

BRAIN FAG.

This condition due to over-work, worry, alcoholic or other excesses is one in which the high frequency current is of especial value. The patient should be thoroughly relaxed, preferably in a prone position and a mild current applied on both sides of the spine with a surface electrode. This treatment may be continued for from 15 to 30 minutes, having been preceded by a warm foot-bath, a sense of restfulness will follow and sleep may be enjoyed.

BRONCHITIS.

Treat with surface electrode over the chest, throat and spine, using a fairly strong spark till redness is produced. Follow with five minute inhalations from the ozone generator, breathing deeply. Use this treatment two or three times daily.

BRUISES.

Treat with surface electrode over injured area. First with close contact and later with gradually increasing spark.

BUNIONS.

In the treatment of enlarged and inflamed joints of the great toe, commonly known as Bunions, the surface electrode using a fairly strong current should be applied directly over the inflamed area followed by a gentle spark. This treatment is merely palliative, and the condition may be permanently remedied by the removal of pressure from the bunion and the wearing of suitable shoes.

CALLOUS.

On calloused areas on the foot a mild fulguration spark obtained from the fulguration electrode will soften the hardened tissues so that they can be readily removed. If a resultant soreness follows, treatment over the area with the surface electrode in direct contact with the skin will afford relief.

COLDS.

Cold in the head (coryza) will be benefited by inhalation from ozone generator, followed by mild current through nasal electrode. The surface electrode may also be used over the antrum, mastoid region, and back of neck. See also bronchitis.

CONSTIPATION.

If this condition be of long standing the patient has generally become pretty thoroughly disillusioned as to the efficacy of drug treatment. The indicated treatment by high frequency varies with the individual patient and with the underlying causes of the condition. Relief, however, in a great

majority of cases may be obtained by a thorough downward massage over the abdominal region with a surface electrode applied first directly on the skin and followed by short spark over the same area. These treatments should be continued for a period of 15 to 20 minutes at least twice daily. If the constipation is particularly stubborn, peristaltic action will be stimulated by means of the insertion of an insulated rectal electrode, properly lubricated, for a period of 4 to 6 minutes. The current should be applied after insertion. As this condition is generally of long standing the treatment should be correspondingly long continued. By these means, however, a permanent cure is often effected.

CORNS.

Hard corns may often be entirely removed by the application of the fulguration spark from the fulguration electrode, care being used to apply the spark particularly upon the hard tissue and not on the surrounding area.

COLD HANDS AND FEET.

This being due to an improper circulation in the extremities relief may be obtained by a gentle spark over their surface gradually increasing until a slight redness appears and sense of warmth prevails.

CATARRHAL CONDITIONS.

In catarrh of the nose and throat the ozone generator is of value and should be used two or three times daily for about five minutes at a time followed by treatment in the nostrils with the nasal electrode with mild current for about three minutes. Care should be used that the current is not turned on until after insertion of electrode.

DEAFNESS.

Unless the tympanum, or drum, of the ear is ruptured chronic deafness may generally be relieved and in many cases entirely cured by high frequency treatment. It should first be seen that the ear passages are thoroughly cleansed of any excess accumulation of wax. The aural electrode should then be used in each ear for a period of 8 to 10 minutes. The gentle stimulation thus afforded to the delicate aural nerves and the mild massage of the tympanum will sometimes result in an immediate improvement in hearing. As a further treatment the surface electrode may be applied over the mastoid region for four or five minutes with a gentle mild current.

DANDRUFF.

See baldness.

EARACHE.

Earache may often be relieved by passing a surface electrode over the side of the face covering the facial nerve and above and back of the ear with a gentle spark. An insulated aural electrode may also be inserted in the ear and very gentle current applied.

ECZEMA.

In many cases of eczema relief will be experienced by treatment with mild spark over the affected area, followed by massage with electrode in close contact with the skin, gradually increasing current.

EYE DISEASE.

Weak and inflamed eyes may be toned and strengthened by the use twice daily of the double eye electrode in close contact with the closed eyelids. 15 to 20 minutes of mild current daily is the treatment indicated.

FALLING HAIR.

See Baldness.

GOITRE.

The absorption of tissue being necessary, treat with external throat electrode in close contact with the skin and follow with moderately sharp spark all over the surface and sides of the protuberance. Persistence in this treatment is necessary.

GOUT.

This most painful and stubborn condition may be helped by a continued massage over the area with a surface electrode and a mild current. Follow this by short spark through a moistened cloth until a redness appears. Careful attention to the diet and to the eliminative processes are imperative in the in the treatment of this disease.

HAY FEVER.

Use ozone generator for a period of 5 to 8 minutes three times daily, also nasal electrode for two to three minutes twice daily. See Asthma.

HEADACHE.

Nervous headache may often be relieved by treatment over the forehead, ears and back of the neck with surface electrode applied directly to the skin, care being taken not to spark. A very mild current should be used and the application continued until relief is experienced. Headache due to biliousness or stomach disorder may often be relieved by applying surface electrode over the abdominal region with mild short spark. Complete relaxation, preferably in a darkened room, following either treatment is necessary.

HEMORRHOIDS.

Use insulated rectal electrode, with mild current for about four to six minutes, care being observed that the electrode is properly lubricated and that current is not turned on until after insertion.

INSOMNIA.

See Brain Fag.

LEUCORRHEA.

In this condition the vaginal electrode perviously lubricated may be used twice daily for a period of 5 minutes. The current employed should be very mild and care observed

that the current is not turned on until after the insertion of the electrode. A general stimulatory treatment with the surface electrode over the pelvic region will also be found beneficial.

LUMBAGO.

Treat over painful area with surface electrode in direct contact, gradually increasing current and raising electrode 1/4 inch from body with sharp stinging spark. Continue until marked redness follows treatment.

MUMPS.

Relief from pain may be secured by treatment with outside throat electrode in direct contact, followed by mild spark from surface electrode over the painful swellings.

NEURALGIA.

This very painful malady is one in which quick and definite relief may generally be promptly obtained. The side of the face and the mastoid region should be massaged with the surface electrode using gentle current and keeping in close contact with the skin. Should the electrode adhere to the skin a small quantity of lubricant may be used over this surface. Gradually increase the current and raise the electrode from the surface until a fairly sharp spark of about 1/8 to 1/4 inch in length is obtained. This counter-irritant will in most cases give quick relief.

NEURITIS.

Treat over the course of the affected nerves with surface electrode in contact. Afterward with spark until redness is produced. The resulting counter-irritation will be found to produce immediate relief.

OBESITY.

As the purpose here is manifestly to destroy superfluous tissue, the indicated treatment is to apply the surface electrode both in contact and with fairly strong spark wherever excess is located. Rigorous diet, exercise, and personal hygiene must of course be observed.

PARALYSIS.

The different forms of paralysis are too varied to give anything like a comprehensive technique of treatment in a booklet whose scope is as limited as this. Broadly speaking, paralysis of the motor nerves will be benefited by stimulatory treatment over the course of the nerve and along the spine. Wonderful results have been attained by the use of high frequency in poliomyelitis (infantile paralysis), post-diphtheritic paralysis, and hemaphlegia of luetic origin. These conditions are slow to yield, but when the nerve centers are re-vitalized, recovery is generally rapid. We will be glad to submit to the profession a list of articles by eminent practitioners on this subject.

PILES.

See Hemorrhoids.

PIMPLES.

See Acne.

PROSTATITIS, ACUTE OR CHRONIC.

This most distressing ailment, common to so many men of middle age, is one in which the high frequency current is almost a specific. The treatment indicated is with the

prostatic electrode but should be employed under the advice and direction of a competent physician.

PYORRHEA (Riggs' Disease).

It is estimated that seven out of ten adults suffer from Pyorrhea. Various specific for its cure have been announced and subsequently rejected by the dental profession. The high frequency current, however, applied particularly to the affected gums by a competent dentist strengthens and tones the spongy tissue, consequently tightening loosened teeth and stops troublesome bleeding of the gums. This condition is of course not one for self-administration and should be employed only by an oral surgeon familiar with its use. (See Excerpts.)

RHEUMATISM.

The pain will be relieved by application of the surface electrode with massage, using lubricant if necessary. Follow with fairly strong spark until pronounced redness is produced. This treatment persistently followed has in many cases resulted in a permanent cure. While relief may be obtained sometimes in one treatment, a permanent cure may require much time and patience.

SCARS.

If the scarified tissue is hardened or callous its removal may be facilitated by the application of a mild spark through the fulguration electrode.

SCIATICA.

Treat with sharp spark along the course of the sciatic nerve until a redness is produced. Two or three treatments daily are not too many.

SKIN DISEASES.

One of the most troublesome and persistent of skin diseases is psoriasis. Clinical data substantiates the assertion that a positive cure may be had in this condition by the use of high frequency. Treat over the affected tissues with the surface electrode held in close contact for fifteen to twenty minutes. Follow by moderate spark for three to five minutes. Treat once daily. See also Acne and Eczema.

SORE THROAT.

Treat on the surface with outside throat electrode. Hold directly against the skin with fairly strong current. The use of the ozone generator for several minutes following may also be of benefit.

SPRAINS.

The pain and soreness following a sprain may be alleviated by treatment, first with the surface electrode in contact with the skin and later by a mild spark gradually increasing in strength until a hyperemia is produced.

STIFFNESS OF JOINTS AND MUSCLES.

This condition is generally due to the over-employment of certain muscles previously little used. The resulting stiffness and soreness may be relieved by the use of the surface electrode followed by a mild spark.

STRICTURES.

Use insulated urethral electrode, properly lubricated with mild current for from three to five minutes, once daily. Care should be observed that the current be not turned on until after insertion of electrode.

TONSILITIS.

See Sore Throat.

WARTS AND MOLES.

These disfigurements, no matter of how long standing, may be most successfully treated by the application of a spark through the fulguration electrode. The greatest care must be exercised that these sparks do not come in contact with the surrounding tissues. This is particularly true when treating warts or moles on the face. In fact, unless the operator is extremely expert in such treatments the removal of these blmishes should be done by or under the direction of a competent physician skilled in the use of this current. Permanent results may be expected, and even the most disfiguring warts or moles may be removed without leaving a trace by these means. (See Excerpts.)

WHOOPING COUGH.

This disease of childhood, which is most contagious, should be treated, following segregation of the child, by the ozone generator three times daily followed by a gentle sparking over the back, chest and throat.

WRITER'S CRAMP.

Treat with gentle spark over the affected fingers and thumb, also massage with surface electrode over palm of the hand.

INSTRUCTIONS FOR USE.

First connect handle to cord, being careful that same is made secure by one turn to clinch in place.

Next insert electrode in handle to its fullest extent without undue pressure. The apparatus is now ready for use.

Connect the plug on the other cord to wall-socket and switch on current.

Current is regulated by the rubber adjusting screw, turning screw to right for heavy output and to left for decreased output.

This output of current may be further regulated at will by an added adjustment to the Contra-Pole Apparatus, not found in any similar machine. This consists of the change of frequency switch in front of the adjusting screw. The "L" (low switch) depressed produces a much lower output than is obtained by the pressure of the "H" (high switch). Consequently it will be seen that the treatment may be varied according to the desire of the operator.

It is recommended that in the hands of the beginner the lower frequency be employed until the familiarity with the working of the apparatus is obtained.

In cases where the surface electrode is applied directly to the skin trouble may sometimes be experienced by the tendency of the electrode to adhere to the skin and thus produce a spark when it is not so desired. This may be overcome by lubricating the surface of the electrode with the Contra-Pole Lubricant. In such cases it is only necessary that the surface of the electrode employed be thoroughly moistened.

In all cases where high frequency current is applied to the mucus membrane, i. e., the entrance to the cavities of the body, the electrode employed should be inserted before current is applied, thus preventing sparking.

In treating with nasal, vaginal and rectal electrodes lubrication of the electrode is necessary before insertion.

HIGH QUALITY OF MATERIAL AND WORKMANSHIP.

No expense has been spared to make the Contra-Pole Apparatus without competition in its field. Only hard wood is used in its construction no nails being employed. The four corner joints are dovetailed with wooden pins, and brass screws are used in the base. The best quality of rubber obtainable is used in the fittings. Our own recently installed plating equipment insures lasting nickel plate on exposed parts. Cords are silk wound over rubber insulation thus insuring perfect freedom from leakage or sparking from cord.

Boxes and cases are built from the best materials obtainable, leather covered with metal reinforced corners and frames and compartments lined with plush.

The interior construction of the Contra-Pole coil does not suffer in comparison with its handsome appearance. In the making of the condensers each sheet of mica is tested under 4,000 volt pressure before being used.

The assembled condenser is again subjected to the same test. This construction we guarantee against puncture of condenser under any commercial voltage.

Our heavy machine, list No. 502 (Doctor's Special), is equipped with a white opaque processed glass switch board easily cleansed and durable; among the additional equipment being cautery attachment, attachment for diagnostic lamp, and an adjustable spark gap, regulating a spark up to four inches in length, capable of producing fluorescence in a four or five inch high frequency tube, and has fittings in the lid for six vacuum electrodes which are supplied with the apparatus.

All windings are made by hand and care is exercised that accuracy is secured.

Spark points are of pure silver.

Electrode handle is of the best quality procurable, regardless of cost. Its dielectric ability is of the highest, thus discounting the chance of leakage. It is detachable from the body of the coil, so being unique in its field, and thereby securing safety from breakage or fraying of connecting cord, and making for facility in operation.

The foregoing statements are made with full confidence in their accuracy. The standard of material varies. But, so sure are we of the intrinsic worth of the Contra-Pole Apparatus that we offer to each purchaser the following guarantee.

GUARANTEE.

Serial No............ Date..................

We guarantee all Contra-Pole Apparata against any defect of material or workmanship for a period of one year from date of sale. (This guarantee does not, however, cover vacuum electrodes in the sale of which we merely act as agents for the manufacturer.)

We agree to make replacements of any part found defective of result of faulty workmanship or material within the period specified above providing the apparatus is returned in good order, transportation charges prepaid to our factory.

All parts of the Contra-Pole Apparata are made in large quantities hence are standard and interchangeable. We carry a full stock of such parts on hand and are able to quickly and economically replace any part.

We do not authorize repairs to be made by local mechanics because such repairs can only be made satisfactorily by high skilled workmen who are especially experienced in electrotherapeutic apparata. Garage mechanics and bell hangers are seldom competent to repair such delicate and sensitive apparata.

CONTRA-POLE ELECTRIC COMPANY, Inc.

Dealer will fill in date below and countersign.

Date ....

Dealer's Name ....

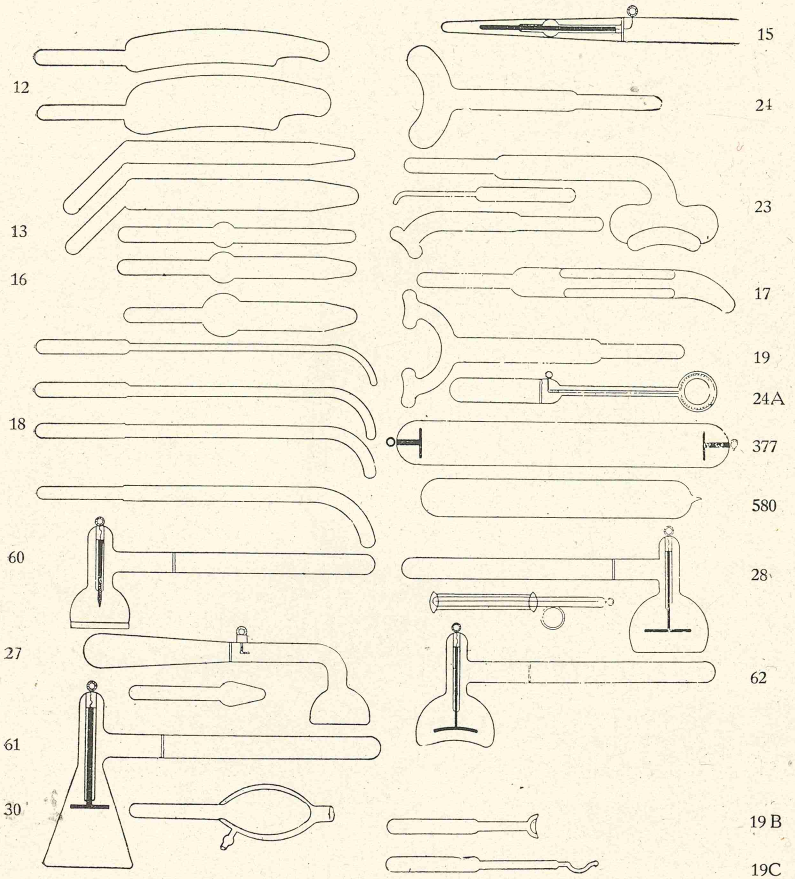
ELECTRODES AND ACCESSORIES

In the sale of electrodes we act merely as manufacturer's agent. All electrodes in general demand are carried in stock. In the case of electrodes for special conditions we will be glad to estimate on cost of same.

It is understood that no guarantee follows the sale of electrodes. We buy from reputable manufacturers and each separate vacuum electrode is tested on Contra-Pole Apparatus before shipment.

As all vacuum electrodes are extremely fragile in construction care must be observed in handling them.

PLAIN VACUUM ELECTRODES



PLAIN VACUUM ELECTRODES

VAGINAL ELECTRODES, PLAIN

No.		Price.
No. 12	Vaginal Electrodes, 5 in set, from ⅞ to 1½ inch. Per set	$3.75

RECTAL ELECTRODES

No. 13	Rectal Electrodes, ⅝ to 1 inch, 3 in set. Per set	2.25
15	Rectal Electrode with insulated handle and fused-in wire	1.50
16	Hemorrhoid Electrodes for internal and external treatment, ⅝, ¾ and ⅞ inch. Per set	2.25
17	Dr. Dieffenbach's Rectal Electrodes, ⅝, ⅞ and 1⅛ inch. Per set	3.00

URETHAL ELECTRODES

No. 18	Special Urethal Electrodes, made according to sounds. We manufacture any size according to standard scales. Ends tapered, made from heavy glass tubing, well annealed, five electrodes in set. Per set	3.75

EYE ELECTRODES

No. 19	Double Eye Electrodes	1.00
20	Single " "	.75
19 A	Spiral " " (no cut)	.75
19 B	Soul's Eye Electrode is a small cup-shaped electrode for applications made directly to the Cornea in inflammatory diseases	.75
19 C	Soul's Muscle and Lid Electrode, so shaped as to conform to the curve of the eyeball; in two vacuums, low for inflammatory diseases of the lid (used inside of the lid), and high for paralysis of muscles. Each	.75

EAR ELECTRODES

No. 21	Dr. Snow's Eustachion Electrode..............	.75
22	Dr. Snow's Electrodes for treating Faruncles, three to set. Per set......................	2.25
23	Mastoid Electrodes, right and left. Per pair....	2.00

THROAT

No. 24	Snow's Electrode for external throat...........	1.00
24 A	Tongue Electrode with insulated handle and fused-in wire	2.00

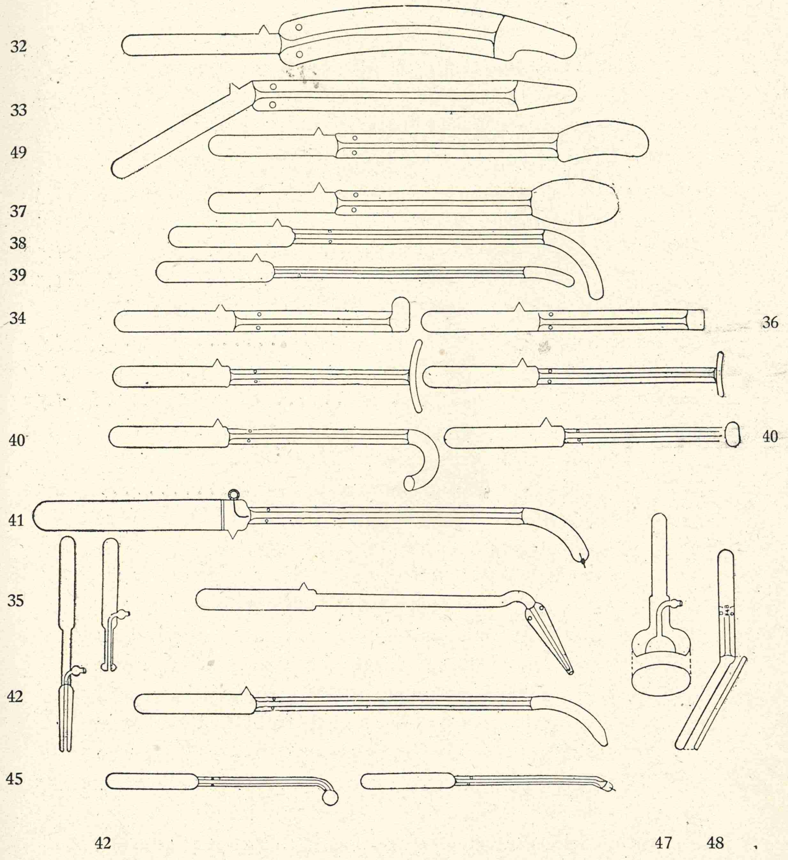
SURFACE ELECTRODES

No. 27	Surface Electrode to treat face and small area..	2.00
28	Surface Electrode to treat large area and heavy discharge	3.00
29	Single Spiral Electrode for treating a large surface	3.50
60	Morton's Cataphoric Electrode for obtaining cataphories by High Frequency currents and general surface treatment................	3.00
61	Dr. J. McParlan's Electrode, made esepcially for heavy discharge in Tubercular condition...	4.50
62	Dr. Goss's Knee Electrode with concave bottom.	3.50
63	A Bipolar Eye Electrode which allows the use of the D'Arsonval current to the eye (no cut)..	3.00
64	Bipolar Facial Electrode (no cut)............	3.00
65	Dr. Geyser's Fulgeration Electrode...........	2.50
68	Comb Electrode (no cut)....................	1.75

IONIZERS

No. 30	Ionizer for generating ozone, and to sub-divide molecules of different vapors inhaled from nebulizer	2.50
577	Vacuum Rheostat for controlling High Frequency currents. Tube 4 feet long.........$4.00 " 5 " " .... 5.00 " 6 " " 6.00	
580	Plain Vacuum Electrodes for drawing current from patient during auto-condensating treatment	.75
576	Double Spiral Bi-Ultra Violet Tube (no cut)...	6.00

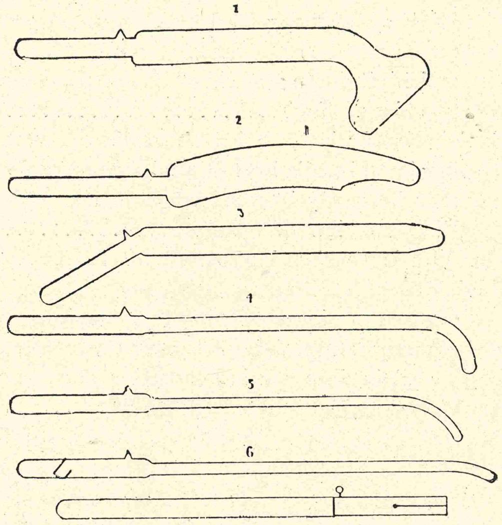
INSULATED VACUUM ELECTRODES



INSULATED VACUUM ELECTRODES

No.	Item	Price.
No. 32	Insulated Vaginal Electrode	$1.50
33	“ Rectal “	1.50
34	“ Post Nasal “	1.50
35	“ Ear “	1.50
36	“ Throat straight	1.50
37	“ Tongue and Tonsil Electrode	1.50
38	“ Throat bent “	1.50
39	“ Nasal “	1.50
40	Dr. Satterlee's Insulated Electrodes for treating Pyorrhea-Alvealaris. Per set	5.00
41	Dr. Judd's Insulated Electrode for cautery	2.50
42	Insulated Urethal Electrode	1.50
	These electrodes can be made any size. In ordering please state what scale is required.	
43	Soule's Ear Electrode, original shape	2.50
44	Soule's Electrode, improved shape. These electrodes have been devised for attaching Vacuum Air Vibrator so that the High Frequency current may be given in combination with the vibratory treatment. They are furnished in two degrees of vacuum. A low degree of vacuum for treatment of acute diseased conditions, and a high vacuum for treatment of all chronic conditions giving rise to adhesions. Three to a set. Each	2.50
45	Soule's Eustachion Electrode is an insulated electrode for applying the High Frequency current directly to the mouth of the Eustachion tube; two (2) vacuums, low for acute conditions and high for chronic conditions. Each	1.50
No. 46	Soule's Tonsil, cautery or direct metal spark. This is used in all diseases of tonsils with beneficial results	1.50
47	Soule's Eye Electrode is a massage cup combining High Frequency and Vibratory massage treatment; two (2) vacuums, low for inflammatory and high for nerve involvement, also made in two sizes. Each	2.50
48	Soule's Nasal Electrode is a short flat electrode with insulated handle bent at 45 degrees, so electrode may be easily handled while in use and at all times in view of operator	1.50
49	Dr. Titus's Insulated Prostatic	2.00
80	Soule's Surface Massage Electrode, having a flat surface or rim permitting the combining of dry cupping and High Frequency currents, very useful in deep eye inflammation (no cut)	3.00
51	Soule's Adenoid Insulated Electrode	1.50

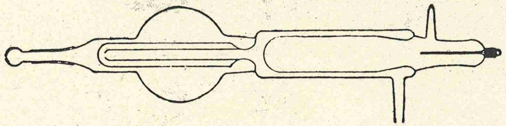
DR. SNOW'S SET OF VACUUM ELECTRODES



Designed for general use, the set contains the following electrodes: Body, Vaginal, Rectal, Throat, Urethal and Nasal, including hard rubber handle.

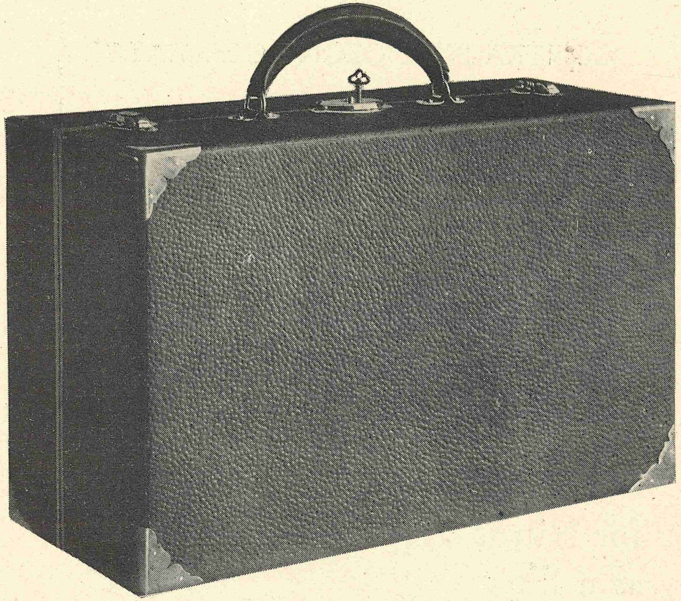
Packed in card board box	$4.00
Electrodes, singly	.75
Handle	.75

CONTRA-POLE OZONE GENERATOR



To be used with essential Oils of Eucalyptus and Pine Needles for the production of pure Ozone. The Oils, which have an affinity for Nitros Acid Gas, thus acting as a filter

Price	$10.00



CONTRA-POLE HIGH FREQUENCY APPARATUS LIST NO. 502 (PHYSICIAN'S SPECIAL) WITH CASE CLOSED. DIMENSIONS 15½ BY 7¼ INCHES.

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CONTRA-POLE ELECTRIC COMPANY INC.

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PRICE 50 CENTS